

**FIGURE 2A:**

10 20 30 40 50 60 70
| | | | | | |
ATGAAGACGACAAAAGAAAATGACAATAATAACATAGTACATTATGTAGATTGGATAAACCAGATTTTTTAAAAAGAAT
M K T T K E N D N N N I V H Y V D W I N Q I F K K N
• R R Q K K M T I I T • Y I M • I G • T R F L K R I
E D D K R K • Q • • H S T L C R L D K P D F • K E F

80 90 100 110 120 130 140 150
| | | | | | |
TCTTTACAATGTGATTTATATTTTTTGGATGACAACAAAGAAAAAGATGTTAGTAAGAAAAGAAAAGCTCAATTGAAG
S L Q C D L Y F L D D N K E K D V S K K R K A Q L K
L Y N V I Y I F W M T T K K K M L V R K E K L N • R
F T M • F I F F G • Q Q R K R C • • E K K S S I E G

160 170 180 190 200 210 220 230
| | | | | | |
GATGAATATGATAATATATCAAGGAGCAAAGAAAATATTAATAATTCCAAAAAATAAAAAATGAATTAAGTATAAAA
D E Y D N I S R S K E N I N N S K K I K N E L S I K
M N M I I Y Q G A K K I L I I P K K • K M N • V • K
• I • • Y I K E Q R K Y • • F Q K N K K • I K Y K R

240 250 260 270 280 290 300 310
| | | | | | |
GATAATATGCACGATTACATATATGATGATCGTATCTACAATAATGATAAAGAGAAAAATGTTATAAAAAAGTGATAAT
D N M H D Y I Y D D R I Y N N D K E K N V I K S D N
I I C T I T Y M M I V S T I M I K R K M L • K V I I
• Y A R L H I • • S Y L Q • • • R E K C Y K K • • •

REPLACEMENT DRAWING

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FIGURE 2A (suite)

320	330	340	350	360	370	380	390
AAAAATGTTATAAAAAGTGATAATAAAAATGATTATAAAAAGTG (A) TAATAAAAATGTTATAAAAAGTGATAATAAAAAT							
K N V I K S D N K N V I K S D N K N V I K S D N K N							
K M L • K V I I K M DL • K V CI I K M L • K V I I K M							
K C Y K K • • • K C Y K K • • • K C Y K K • • • K C							

400	410	420	430	440	450	460
GTTATAAAAAGTGATAATAAAAATGTTATA AAAAGTGATAATAAAAATGTTATAAAAAGTGATTATAAAAAGTGATGAT						
V I K S D N K N V I K S D N K N V I K S D Y K S D D						
L • K V I I K M L • K V I I K M L • K V I I K V M I						
Y K K • • • K C Y K K • • • K C Y K K • L • K • • •						

470	480	490	500	510	520	530	540
AGAAATGCTTGTGATATTTATAAAAAGTAATAAAAAAATGTTCTTGATAATTGCCATATATATGATGATAATAGTTCA							
R N A C D I Y K S N K K N V P D N C H I Y D D N S S							
E M L V I F I K V I K K M F L I I A I Y M M I I V Q							
K C L • Y L • K • • K K C S • • L P Y I • • • F S							

550	560	570	580	590	600	610	620
GTTGAAAATTTAGATGGAAAAAATAAATTAAATAATATAAGGAACATACATAATGATAACTCATCTTCATGCGATATA							
V E N L D G K N K L N N I R N I H N D N S S S C D I							
L K I • M E K I N • I I • G T Y I M I T H L H A I Y							
• K F R W K K • I K • Y K E H T • • • L I F M R Y I							

630	640	650	660	670	680	690	700
TCCGATATAAAAAGTGAAGATGAATATATAGAACCATATGAAAAAAGAATGAAGAAAATATAAATGAATATAAGAAT							
S D I K S E D E Y I E P Y E K K N E E N I N E Y K N							
P I • K V K M N I • N H M K K R M K K I • M N I R I							
R Y K K • R • I Y R T I • K K E • R K Y K • I • E •							

REPLACEMENT DRAWING

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FIGURE 2A (suite)

710	720	730	740	750	760	770	780
AAGAAAAATATAGCCAATGAAAATATAAAGAAGGAAAGAGTTCAATTTATAATGATGAACATAATTATAATTCATTA							
K K N I A N E N I K E G K S S I Y N D E H N Y N S L							
R K I • P M K I • K K E R V Q F I M M N I I I I H Y							
E K Y S Q • K Y K R R K E F N L • • • T • L • F I I							

790	800	810	820	830	840	850
TTATATAATTCTTGTAAATGGTGAAATAAGTAAGATCAACAAAATAAGTAGTCATAATAATATTGATAATAATATGGAT						
L Y N S C N G E I S K I N K I S S H N N I D N N M D						
Y I I L V M V K • V R S T K • V V I I I I L I I I W I						
I • F L • W • N K • D Q Q N K • S • • Y • • • Y G •						

860	870	880	890	900	910	920	930
AATTATAATACGTTTGCAAATGTGAATAATTTTATAATATATTCCTCAGATGATGAAGATAATATATCAAATTATTAT							
N Y N T F A N V N N F I I Y S S D D E D N I S N Y Y							
I I I R L Q M • I I L • Y I P Q M M K I I Y Q I I I							
L • Y V C K C E • F Y N I F L R • • R • Y I K L L •							

940	950	960	970	980	990	1000	1010
AATGGTAAAGACGTATTAAATGATGAGATTATGTTCCCTATAAAATTTAATTTTGAAAAATTAAAAAAAATATTTAT							
N G K D V L N D E I M F P I K F N F E K L K K N I Y							
M V K T Y • M M R L C S L • N L I L K N • K K I F M							
W • R R I K • • D Y V P Y K I • F • K I K K K Y L C							

REPLACEMENT DRAWING

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FIGURE 2A (suite)

1020	1030	1040	1050	1060	1070	1080	1090
GTAATAGAGCATATAGACAAAATATATTATGATACATTTTTAAATAAAAAATCCAAGTGAAAAAAGTGTTTTTATGAAT							
<u>V I E H I D K I Y Y D T F L N K N P S E K S V F M N</u>							
• • S I • T K Y I M I H F • I K I Q V K K V F L • M							
N R A Y R Q N I L • Y I F K • K S K • K K C F Y E •							

1100	1110	1120	1130	1140	1150	1160	1170
GATGAATCTACTGGTTATTTGAAAAATGATGTGAATGACAAATGTGTTGTTGATAATATAAATGTTATTAATCCTTCT							
<u>D E S T G Y L K N D V N D K C V V D N I N V I N P S</u>							
M N L L V I • K M M • M T N V L L I I • M L L I L L							
• I Y W L F E K • C E • Q M C C • • Y K C Y • S F •							

1180	1190	1200	1210	1220	1230	1240
AGTGTGAATACGTTGAGTAATATTTCAAATATTAGGAATGAAAAAATAGAAAAATAATAAGAATGAAAAATTAATA						
<u>S V N T L S N I S N I R N E K I E N N N K N E K L I</u>						
V • I R • V I F Q I L G M K K • K I I I R M K N • •						
C E Y V E • Y F K Y • E • K N R K • • • E • K I N K						

1250	1260	1270	1280	1290	1300	1310	1320
AAATCATATCCTACACAATCAAAAAATGTTATGAGTACATTTTCCTTTTGGAAATATTGAAAAGGAGACATTTATAACA							
<u>K S Y P T Q S K N V M S T F S F W N I E K E T F I T</u>							
N H I L H N Q K M L • V H F P F G I L K R R H L • Q							
I I S Y T I K K C Y E Y I F L L E Y • K G D I Y N K							

1330	1340	1350	1360	1370	1380	1390	1400
AAACCTTTGTATGCACAAAATTTGAGAAAAAACAATTTAGTTTATTAGATGAATCTGAAGAGATGATAAGAAATTAT							
<u>K P L Y A Q N L R K K Q F S L L D E S E E M I R N Y</u>							
N L C M H K I • E K N N L V Y • M N L K R • • E I I							
T F V C T K F E K K T I • F I R • I • R D D K K L F							

REPLACEMENT DRAWING

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FIGURE 2A (suite)

1410	1420	1430	1440	1450	1460	1470	1480
TCATCTAATCAATATTCTATAAAATTTGTACCAAGACATTTATTATATGTAATGAGTCAAGTTGCTTCTCGATCCTTT							
<u>S S N Q Y S I K F V P R H L L Y V M S Q V A S R S F</u>							
H L I N I L • N L Y Q D I Y Y M • • V K L L L D P F							
I • S I F Y K I C T K T F I I C N E S S C F S I L F							
1490	1500	1510	1520				
TTTGATCCTTTATATAGAAAGCAGTTATTTTTTCGTTACTAA							
<u>F D P L Y R K Q L F F R Y •</u>							
L I L Y I E S S Y F F V T							
• S F I • K A V I F S L L							

REPLACEMENT DRAWING

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Figure 2B:

10	20	30	40	50	60	70	
ATGAAAGGGAAAATGAATATGTGTTTGTGTTTTTTCTATTCTATATTATATGTTGTATTATGTACCTATGTATTAGGT							
<u>M K G K M N M C L F F F Y S I L Y V V L C T Y V L G</u>							
• K G K • I C V C F F S I L Y Y M L Y Y V P M Y • V							
E R E N E Y V F V F F L F Y I I C C I M Y L C I R Y							
80	90	100	110	120	130	140	150
ATAAGTGAAGAGTATTTGAAGGAAAGGCCCAAGGTTTAAATGTTGAGACTAATAATAATAATAATAATAATAAT							
<u>I S E E Y L K E R P Q G L N V E T N N N N N N N N N</u>							
• V K S I • R K G P K V • M L R L I I I I I I I I I							
K • R V F E G K A P R F K C • D • • • • • • • • •							
160	170	180	190	200	210	220	230
AATAATAGTAATAGTAACGATGCGATGTCTTTTGTAATGAAGTAATAAGGTTTATAGAAAACGAGAAGGATGATAAA							
<u>N N S N S N D A M S F V N E V I R F I E N E K D D K</u>							
I I V I V T M R C L L • M K • • G L • K T R R M I K							
• • • • • R C D V F C K • S N K V Y R K R E G • • R							
240	250	260	270	280	290	300	310
GAAGATAAAAAAGTGAAGATAATATCTAGACCTGTTGAGAATACATTACATAGATATCCAGTTAGTTCTTTTCTGAAT							
<u>E D K K V K I I S R P V E N T L H R Y P V S S F L N</u>							
K I K K • R • Y L D L L R I H Y I D I Q L V L F • I							
R • K S E D N I • T C • E Y I T • I S S • F F S E Y							

REPLACEMENT DRAWING

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FIGURE 2B (suite)

320	330	340	350	360	370	380	390
ATCAAAAAGTATGGTAGGAAAGGGGAATATTTGAATAGAAATAGTTTTGTTCAAAGATCATATATAAGGGGTTGTAAA							
I K K Y G R K G E Y L N R N S F V Q R S Y I R G C K							
S K S M V G K G N I • I E I V L F K D H I • G V V K							
Q K V W • E R G I F E • K • F C S K I I Y K G L • R							

400	410	420	430	440	450	460
GGAAAAAGAAGCACACATACATGGATATGTGAAAATAAAGGGAATAATAATATATGTATTCCCTGATAGACGTGTACAA						
G K R S T H T W I C E N K G N N N I C I P D R R V Q						
E K E A H I H G Y V K I K G I I I Y V F L I D V Y N						
K K K H T Y M D M • K • R E • • Y M Y S • • T C T I						

470	480	490	500	510	520	530	540
TTATGTATAACAGCTCTTCAAGATTTAAAAAATTCAGGATCTGAAACGACTGATAGAAAATTATTAAGAGATAAAGTA							
L C I T A L Q D L K N S G S E T T D R K L L R D K V							
Y V • Q L F K I • K I Q D L K R L I E N Y • E I K Y							
M Y N S S S R F K K F R I • N D • • K I I K R • S I							

550	560	570	580	590	600	610	620
TTTGATTACAGCTATGTATGAAACTGATTTGTTATGGAATAAATATGGTTTTCTGGATTGATGATTTTTGTGACGAT							
F D S A M Y E T D L L W N K Y G F R G F D D F C D D							
L I Q L C M K L I C Y G I N M V F V D L M I F V T M							
• F S Y V • N • F V M E • I W F S W I • • F L • R C							

630	640	650	660	670	680	690	700
GTAAAAAATAGTTATTTAGATTATAAAGATGTTATATTTGGAACCGATTAGATAAAAAATAATATATCAAAGTTAGTA							
V K N S Y L D Y K D V I F G T D L D K N N I S K L V							
• K I V I • I I K M L Y L E P I • I K I I Y Q S • •							
K K • L F R L • R C Y I W N R F R • K • Y I K V S R							

REPLACEMENT DRAWING

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FIGURE 2B (suite)

710	720	730	740	750	760	770	780
GAGGAATCATTAAAACGTTTTTTTAAAAAAGATAGTAGTGTACTTAATCCTACTGCTTGGTGGAGAAGGTATGGAACA							
<u>E E S L K R F F K K D S S V L N P T A W W R R Y G T</u>							
R N H • N V F L K K I V V Y L I L L L G G E G M E Q							
G I I K T F F • K R • • C T • S Y C L V E K V W N K							
790	800	810	820	830	840	850	
AGACTATGGAAACTATGATACAGCCATATGCTCATTTAGGATGTAGAAAACCTGATGAGAATGAACCTCAGATAAAT							
<u>R L W K T M I Q P Y A H L G C R K P D E N E P Q I N</u>							
D Y G K L • Y S H M L I • D V E N L M R M N L R • I							
T M E N Y D T A I C S F R M • K T • • E • T S D K •							
860	870	880	890	900	910	920	930
AGATGGATTCTGGAATGGGGGAAATATAATTGTAGATTAAATGAAGGAGAAAGAAAAATTGTTAACAGGAGAATGTTCT							
<u>R W I L E W G K Y N C R L M K E K E K L L T G E C S</u>							
D G F W N G G N I I V D • • R R K K N C • Q E N V L							
M D S G M G E I • L • I N E G E R K I V N R R M F C							
940	950	960	970	980	990	1000	1010
GTTAATAGAAAAAATCTGACTGCTCAACCGGATGTAATAATGAGTGTATACCTATAGGAGTCTTATTAATAGACAA							
<u>V N R K K S D C S T G C N N E C Y T Y R S L I N R Q</u>							
L I E K N L T A Q P D V I M S V I P I G V L L I D K							
• • K K I • L L N R M • • • V L Y L • E S Y • • T K							
1020	1030	1040	1050	1060	1070	1080	1090
AGATATGAGGTCTCTATATTAGGAAAAAATATATTAAAGTAGTACGATATACTATATTTAGGAGAAAAATAGTTCAA							
<u>R Y E V S I L G K K Y I K V V R Y T I F R R K I V Q</u>							
D M R S L Y • E K N I L K • Y D I L Y L G E K • F N							
I • G L Y I R K K I Y • S S T I Y Y I • E K N S S T							

REPLACEMENT DRAWING

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FIGURE 2B (suite)

1100	1110	1120	1130	1140	1150	1160	1170
CCTGATAATGCTTTGGATTTTTTAAATTAATTTGTTCTGAGTGTAAAGGATATTGATTTTAAACCCTTTTTTGAATTT							
<u>P D N A L D F L K L N C S E C K D I D F K P F F E F</u>							
L I M L W I F • N • I V L S V R I L I L N P F L N L							
• • C F G F F K I K L F • V • G Y • F • T L F • I •							

1180	1190	1200	1210	1220	1230	1240
GAATATGGTAAATATGAAGAAAAATGTATGTGTCAATCATATATTGATTTAAAAATCCAATTTAAAAATAATGATATT						
<u>E Y G K Y E E K C M C Q S Y I D L K I Q F K N N D I</u>						
N M V N M K K N V C V N H I L I • K S N L K I M I F						
I W • I • R K M Y V S I I Y • F K N P I • K • • Y L						

1250	1260	1270	1280	1290	1300	1310	1320
TGTTTCATTTAATGCTCAAACAGATACTGTTTCTAGCGATAAAAGATTTTGTCTTGAAAAGAAAGAATTTAAACCATGG							
<u>C S F N A Q T D T V S S D K R F C L E K K E F K P W</u>							
V H L M L K Q I L F L A I K D F V L K R K N L N H G							
F I • C S N R Y C F • R • K I L S • K E R I • T M E							

1330	1340	1350	1360	1370	1380	1390	1400
AAATGTGATAAAAATTCTTTTGAAACAGTTCATCATAAAGGTGTATGTGTGTCCACGAGAAGACAAGGTTTTTGTTTA							
<u>K C D K N S F E T V H H K G V C V S P R R Q G F C L</u>							
N V I K I L L K Q F I I K V Y V C H R E D K V F V •							
M • • K F F • N S S S • R C M C V T E K T R F L F R							

1410	1420	1430	1440	1450	1460	1470	1480
GGAAATTTGAACTATCTACTGAATGATGATATTTATAATGTACATAATTCACAACTACTTATCGAAATTATAATGGCT							
<u>G N L N Y L L N D D I Y N V H N S Q L L I E I I M A</u>							
E I • T I Y • M M I F I M Y I I H N Y L S K L • W L							
K F E L S T E • • Y L • C T • F T T T Y R N Y N G F							

REPLACEMENT DRAWING

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FIGURE 2B (suite)

1490	1500	1510	1520	1530	1540	1550	1560
TCTAAACAAGAAGGAAAGTTATTATGGAAAAACATGGAACAATACTTGATAACCAGAATGCATGCAAATATATAAAT							
<u>S K Q E G K L L W K K H G T I L D N Q N A C K Y I N</u>							
L N K K E S Y Y G K N M E Q Y L I T R M H A N I • M							
• T R R K V I M E K T W N N T • • P E C M Q I Y K •							

1570	1580	1590	1600	1610	1620	1630
GATAGTTATGTTGATTATAAAGATATAGTTATTGGAAATGATTTATGGAATGATAACAACCTCTATAAAAGTTCAAAT						
<u>D S Y V D Y K D I V I G N D L W N D N N S I K V Q N</u>						
I V M L I I K I • L L E M I Y G M I T T L • K F K I						
• L C • L • R Y S Y W K • F M E • • Q L Y K S S K •						

1640	1650	1660	1670	1680	1690	1700	1710
AATTTAAATTTAATTTTTGAAAGAAATTTTGGTTATAAAGTTGGAAGAAATAAACTCTTTAAACAATTAAGAATTA							
<u>N L N L I F E R N F G Y K V G R N K L F K T I K E L</u>							
I • I • F L K E I L V I K L E E I N S L K Q L K N •							
F K F N F • K K F W L • S W K K • T L • N N • R I K							

1720	1730	1740	1750	1760	1770	1780	1790
AAAAATGTATGGTGGATATTAAATAGAAATAAAGTATGGGAATCAATGAGATGTGGAATTGACGAAGTAGATCAACGT							
<u>K N V W W I L N R N K V W E S M R C G I D E V D Q R</u>							
K M Y G G Y • I E I K Y G N Q • D V E L T K • I N V							
K C M V D I K • K • S M G I N E M W N • R S R S T •							

1800	1810	1820	1830	1840	1850	1860	1870
AGAAAACTTGTGAAAGAATAGATGAACTAGAAAACATGCCACAATTCTTTAGATGGTTTTACAAATGGGCACATTTTC							
<u>R K T C E R I D E L E N M P Q F F R W F S Q W A H F</u>							
E K L V K E • M N • K T C H N S L D G F H N G H I S							
K N L • K N R • T R K H A T I L • M V F T M G T F L							

REPLACEMENT DRAWING

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FIGURE 2B (suite)

1880	1890	1900	1910	1920	1930	1940	1950
TTTTGTAAGGAAAAAGAATATTGGGAATTAAAATTAAATGATAAATGTACAGGTAATAATGGAAAATCCTTATGTCAG							
<u>F C K E K E Y W E L K L N D K C T G N N G K S L C Q</u>							
F V R K K N I G N • N • M I N V Q V I M E N P Y V R							
L • G K R I L G I K I K • • M Y R • • W K I L M S G							

1960	1970	1980	1990	2000	2010	2020
GATAAAACATGTCAAAATGTGTGTACTAATATGAATTATTGGACATATACTAGAAAATTAGCTTATGAAATACAATCC						
<u>D K T C Q N V C T N M N Y W T Y T R K L A Y E I Q S</u>						
I K H V K M C V L I • I I G H I L E N • L M K Y N P						
• N M S K C V Y • Y E L L D I Y • K I S L • N T I R						

2030	2040	2050	2060	2070	2080	2090	2100
GTAAATATGATAAAGATAGAAAATTATTTAGTCTTGCTAAAGACAAAAATGTAACACTACATTTTTAAAGGAAAATGCA							
<u>V K Y D K D R K L F S L A K D K N V T T F L K E N A</u>							
• N M I K I E N Y L V L L K T K M • L H F • R K M Q							
K I • • R • K I I • S C • R Q K C N Y I F K G K C K							

2110	2120	2130	2140	2150	2160	2170	2180
AAAAATTGTTCTAATATAGATTTTACAAAAATATTCGATCAGCTTGACAAACTCTTTAAGGAAAGATGTTTCATGTATG							
<u>K N C S N I D F T K I F D Q L D K L F K E R C S C M</u>							
K I V L I • I L Q K Y S I S L T N S L R K D V H V W							
K L F • Y R F Y K N I R S A • Q T L • G K M F M Y G							

2190	2200	2210	2220	2230	2240	2250	2260
GATACACAAGTTTTAGAAGTAAAAACAAAGAAATGTTATCTATAGACTCAAATAGTGAAGATGCGACAGATATAAGT							
<u>D T Q V L E V K N K E M L S I D S N S E D A T D I S</u>							
I H K F • K • K T K K C Y L • T Q I V K M R Q I • V							
Y T S F R S K K Q R N V I Y R L K • • R C D R Y K •							

REPLACEMENT DRAWING

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FIGURE 2B (suite)

2270	2280	2290	2300	2310	2320	2330	2340
GAGAAAAATGGAGAGGAAGAATTATATGTAAATCACAATTCTGTGAGTGTGCGCAAGTGGTAATAAAGAAATCGAAAAG							
<u>E K N G E E E L Y V N H N S V S V A S G N K E I E K</u>							
R K M E R K N Y M • I T I L • V S Q V V I K K S K R							
E K W R G R I I C K S Q F C E C R K W • • R N R K E							

2350	2360	2370	2380	2390	2400	2410
AGTAAGGATGAAAAGCAACCTGAAAAAGAAGCAAAACAACTAATGGAACCTTTAACCGTACGAACTGACAAAGATTCA						
<u>S K D E K Q P E K E A K Q T N G T L T V R T D K D S</u>						
V R M K S N L K K K Q N K L M E L • P Y E L T K I Q						
• G • K A T • K R S K T N • W N F N R T N • Q R F R						

2420	2430	2440	2450	2460	2470	2480	2490
GATAGAAACAAAGGAAAAGATACAGCTACTGATACAAAAAATTCACCTGAAAATTTAAAAGTACAGGAACATGGAACA							
<u>D R N K G K D T A T D T K N S P E N L K V Q E H G T</u>							
I E T K E K I Q L L I Q K I H L K I • K Y R N M E Q							
• K Q R K R Y S Y • Y K K F T • K F K S T G T W N K							

2500	2510	2520	2530	2540	2550	2560	2570
AATGGAGAAACAATAAAAGAAGAACCCACCAAATTACCTGAATCATCTGAAACATTACAATCACAAGAACAATTAGAA							
<u>N G E T I K E E P P K L P E S S E T L Q S Q E Q L E</u>							
M E K Q • K K N H Q N Y L N H L K H Y N H K N N • K							
W R N N K R R T T K I T • I I • N I T I T R T I R S							

2580	2590	2600	2610	2620	2630	2640	2650
GCAGAAGCACAAAAACAAAAACAAGAAGAAGAACCAAAAAAAAAACAAGAAGAAGAACCAAAAAAAAAACAAGAAGAA							
<u>A E A Q K Q K Q E E E P K K K Q E E E P K K K Q E E</u>							
Q K H K N K N K K K N Q K K N K K K N Q K K N K K K							
R S T K T K T R R R T K K K T R R R T K K K T R R R							

REPLACEMENT DRAWING

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FIGURE 2B (suite)

2660 2670 2680 2690 2700 2710 2720 2730
| | | | | | | |
GAACAAAAACGAGAACAAGAACAACAAAAACAAGAACAAGAAGAACAACAAAAACAAGAAGAACAACAATACAA
E Q K R E Q E Q K Q E Q E E E E Q K Q E E E Q Q I Q
N K N E N K N K N K N K K K K N K N K K K N N K Y K
T K T R T R T K T R T R R R R T K T R R R T T N T R

2740 2750 2760 2770 2780 2790 2800
| | | | | | |
GATCAATCACAAAGTGGATTAGATCAATCCTCAAAGTAGGAGTAGCGAGTGAACAAAATGAAATTTCTTCAGGACAA
D Q S Q S G L D Q S S K V G V A S E Q N E I S S G Q
I N H K V D • I N P Q K • E • R V N K M K F L Q D K
S I T K W I R S I L K S R S S E • T K • N F F R T R

2810 2820 2830 2840 2850 2860 2870 2880
| | | | | | |
GAACAAAACGTAAAAAGCTCTTCACCTGAAGTAGTTCACAAGAAACAACACTAGTGAAAATGGGTCATCACAAGACACA
E Q N V K S S S P E V V P Q E T T S E N G S S Q D T
N K T • K A L H L K • F H K K Q L V K M G H H K T Q
T K R K K L F T • S S S T R N N • • K W V I T R H K

2890 2900 2910 2920 2930 2940 2950 2960
| | | | | | |
AAAATATCAAGTACTGAACCAAATGAGAATTCTGTTGTAGATAGAGCAACAGATAGTATGAATTTAGATCCTGAAAAG
K I S S T E P N E N S V V D R A T D S M N L D P E K
K Y Q V L N Q M R I L L • I E Q Q I V • I • I L K R
N I K Y • T K • E F C C R • S N R • Y E F R S • K G

2970 2980 2990 3000 3010 3020 3030 3040
| | | | | | |
GTTCATAATGAAAATATGAGTGATCCAAATACAAATACTGAACCAGATGCATCTTTAAAAGATGATAAGAAGGAAGTT
V H N E N M S D P N T N T E P D A S L K D D K K E V
F I M K I • V I Q I Q I L N Q M H L • K M I R R K L
S • • K Y E • S K Y K Y • T R C I F K R • • E G S •

REPLACEMENT DRAWING

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FIGURE 2B (suite)

3050	3060	3070	3080	3090	3100	3110	3120
GATGATGCCAAAAAAGAACTTCAATCTACTGTATCAAGAATTGAATCTAATGAACAGGACGTTCAAAGTACACCACCC							
<u>D D A K K E L Q S T V S R I E S N E Q D V Q S T P P</u>							
M M P K K N F N L L Y Q E L N L M N R T F K V H H P							
• C Q K R T S I Y C I K N • I • • T G R S K Y T T R							

3130	3140	3150	3160	3170	3180	3190
GAAGATACTCCTACTGTTGAAGGAAAAGTAGGAGATAAAGCAGAAATGTTAACTTCTCCGCATGCGACAGATAATTCT						
<u>E D T P T V E G K V G D K A E M L T S P H A T D N S</u>						
K I L L L L K E K • E I K Q K C • L L R M R Q I I L						
R Y S Y C • R K S R R • S R N V N F S A C D R • F •						

3200	3210	3220	3230	3240	3250	3260	3270
GAGTCGGAATCAGGTTTAAATCCAACCTGATGACATTAAACAACCTGATGGTGTGTTAAAGAACAAGAAATATTAGGG							
<u>E S E S G L N P T D D I K T T D G V V K E Q E I L G</u>							
S R N Q V • I Q L M T L K Q L M V L L K N K K Y • G							
V G I R F K S N • • H • N N • W C C • R T R N I R G							

3280	3290	3300	3310	3320	3330	3340	3350
GGAGGTGAAAGTGCAACTGAAACATCAAAAAGTAATTTAGAAAAACCTAAGGATGTTGAACCTTCTCATGAAATATCT							
<u>G G E S A T E T S K S N L E K P K D V E P S H E I S</u>							
E V K V Q L K H Q K V I • K N L R M L N L L M K Y L							
R • K C N • N I K K • F R K T • G C • T F S • N I •							

3360	3370	3380	3390	3400	3410	3420	3430
GAACCTGTTCTTTCTGGTACAACCTGTTAAAGAAGAATCAGAGTTATTAATAAAGTAAATCGATAGAGACGAAGGGGAA							
<u>E P V L S G T T G K E E S E L L K S K S I E T K G E</u>							
N L F F L V Q L V K K N Q S Y • K V N R • R R R G K							
T C S F W Y N W • R R I R V I K K • I D R D E G G N							

REPLACEMENT DRAWING

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FIGURE 2B (suite)

3440	3450	3460	3470	3480	3490	3500	3510
ACAGATCCTCGAAGTAATGACCAAGAAGATGCTACTGACGATGTTGTAGAAAATAGTAGAGATGATAATAATAGTCTC							
T	D	P	R	S	N	D	Q
E	D	A	T	D	D	V	V
E	N	S	R	D	D	N	N
S	L	Q	I	L	E	V	M
T	K	K	M	L	L	T	M
L	•	K	I	V	E	M	I
I	I	I	V	S	R	S	S
K	•	•	P	R	R	C	Y
•	R	C	C	R	K	•	•
R	•	•	•	•	S	L	
3520	3530	3540	3550	3560	3570	3580	
TCTAATAGCGTAGATAATCAAAGTAATGTTTTAAATAGAGAAGATCCTATTGCTTCTGAAACTGAAGTTGTAAGTGAA							
S	N	S	V	D	N	Q	S
N	V	L	N	R	E	D	P
I	A	S	E	T	E	V	V
S	E	L	I	A	•	I	I
K	V	M	F	•	I	E	K
I	L	L	L	L	K	L	K
L	•	V	N	•	•	R	R
•	S	K	•	C	F	K	•
R	R	S	Y	C	F	•	N
•	S	C	K	•	T		
3590	3600	3610	3620	3630	3640	3650	3660
		G					
CCTGAGGATTCAAGTAGGATAATCACTACAGAAGTTCCAAGTACTACTGTAAAACCCCTGATGAAAAACGATCTGAA							
P	E	D	S	S	R	I	I
M	T	T	E	V	P	S	T
T	V	K	P	P	D	E	K
R	S	E	L	R	I	Q	V
G	•	S	L	Q	K	F	Q
V	L	L	•	N	P	L	M
K	N	D	L	K	•	G	F
K	•	D	N	H	Y	R	S
S	S	K	Y	Y	C	K	T
P	•	•	K	T	I	•	R
3670	3680	3690	3700	3710	3720	3730	3740
GAAGTAGGAGAAAAAGAAGCTAAAGAAATTAAAGTAGAACCTGTTGTACCAAGAGCCATTGGAGAACCAATGGAAAAT							
E	V	G	E	K	E	A	K
E	I	K	V	E	P	V	V
P	R	A	I	G	E	P	M
E	N	K	•	E	K	K	K
L	K	K	L	K	•	N	L
L	Y	Q	E	P	L	E	N
Q	W	K	I	S	R	R	K
R	S	•	R	N	•	S	R
T	C	C	T	K	S	H	W
R	T	N	G	K	F		
3750	3760	3770	3780	3790	3800	3810	3820
TCTGTGAGCGTACAGTCCCTCCTAATGTAGAAGATGTTGAAAAAGAAACATTGATATCTGAGAATAATGGATTACAT							
S	V	S	V	Q	S	P	P
N	V	E	D	V	E	K	E
T	L	I	S	E	N	N	G
L	H	L	•	A	Y	S	P
L	L	M	•	K	M	L	K
K	K	K	H	•	Y	L	R
I	M	D	Y	I	C	E	R
T	V	P	S	•	C	R	R
C	•	K	R	N	I	D	I
•	E	•	W	I	T	•	

REPLACEMENT DRAWING

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FIGURE 2B (suite)

3830	3840	3850	3860	3870	3880	3890	3900
AATGATACACACAGAGGAAATATCAGTGAAAAGGATTTAATCGATATTCATTTGTTAAGAAATGAAGCGGGTAGTACA							
<u>N D T H R G N I S E K D L I D I H L L R N E A G S T</u>							
M I H T E E I S V K R I • S I F I C • E M K R V V Q							
• Y T Q R K Y Q • K G F N R Y S F V K K • S G • Y N							

3910	3920	3930	3940	3950	3960	3970
ATATTAGATGATTCTAGAAGAAATGGAGAAATGACAGAAGGTAGCGAAAGTGATGTTGGAGAATTACAAGAACATAAT						
<u>I L D D S R R N G E M T E G S E S D V G E L Q E H N</u>						
Y • M I L E E M E K • Q K V A K V M L E N Y K N I I						
I R • F • K K W R N D R R • R K • C W R I T R T • F						

3980	3990	4000	4010	4020	4030	4040	4050
TTTAGCACACAACAAAAAGATGAAAAAGATTTTGACCAAATTGCGAGCGATAGAGAAAAAGAAGAAATTCAAAAATTA							
<u>F S T Q Q K D E K D F D Q I A S D R E K E E I Q K L</u>							
L A H N K K M K K I L T K L R A I E K K K K F K N Y							
• H T T K R • K R F • P N C E R • R K R R N S K I T							

4060	4070	4080	4090	4100	4110	4120	4130
CTTAATATAGGACATGAAGAGGATGAAGATGTATTAATAAATGGATAGAACAGAGGATAGTATGAGTGATGGAGTTAAT							
<u>L N I G H E E D E D V L K M D R T E D S M S D G V N</u>							
L I • D M K R M K M Y • K W I E Q R I V • V M E L I							
• Y R T • R G • R C I K N G • N R G • Y E • W S • •							

4140	4150	4160	4170	4180	4190	4200	4210
AGTCATTTGTATTATAATAATCTATCAAGTGAAGAAAAAATGGAACAATATAATAATAGAGATGCTTCTAAAGATAGA							
<u>S H L Y Y N N L S S E E K M E Q Y N N R D A S K D R</u>							
V I C I I I I Y Q V K K K W N N I I I E M L L K I E							
S F V L • • S I K • R K N G T I • • • R C F • R • R							

REPLACEMENT DRAWING

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FIGURE 2B (suite)

4220	4230	4240	4250	4260	4270	4280	4290
GAAGAAATATTGAATAGGTCAAACACAAATACATGTTCTAATGAACATTCATTAAAAATATTGTCAATATATGGAAAGA							
<u>E E I L N R S N T N T C S N E H S L K Y C Q Y M E R</u>							
K K Y • I G Q T Q I H V L M N I H • N I V N I W K E							
R N I E • V K H K Y M F • • T F I K I L S I Y G K K							

4300	4310	4320	4330	4340	4350	4360
AATAAGGATTTATTAGAAACATGTTCTGAAGACAAAAGGTTACATTTATGTTGTGAAATATCAGATTATTGTTTAAAA						
<u>N K D L L E T C S E D K R L H L C C E I S D Y C L K</u>						
I R I Y • K H V L K T K G Y I Y V V K Y Q I I V • N						
• G F I R N M F • R Q K V T F M L • N I R L L F K I						

4370	4380	4390	4400	4410	4420	4430	4440
TTTTTCAATCCTAAATCGATAGAATACTTTGATTGTACACAAAAAGAATTTGATGACCCTACATATAATTGTTTTAGA							
<u>F F N P K S I E Y F D C T Q K E F D D P T Y N C F R</u>							
F S I L N R • N T L I V H K K N L M T L H I I V L E							
F Q S • I D R I L • L Y T K R I • • P Y I • L F • K							

4450	4460	4470	4480	4490	4500	4510	4520
AAACAAAGATTTACAAGTATGTCATGTTATAAAATTAAAAACAATATACATTAATATGTTAATAAAAAAATAATATA							
<u>K Q R F T S M S C Y K I K N N I H • Y V N K K N N I</u>							
N K D L Q V C H V I K L K T I Y I N M L I K K I I Y							
T K I Y K Y V M L • N • K Q Y T L I C • • K K • Y I							

4530	4540	4550	4560	4570	4580	4590	4600
TTTTTTTCTCTTTTCTTTTTTTTAAATAGGTATGCATTATATTGCCGGGGGTGGTATAATAGCCCTTTTATTGTTTA							
<u>F F S L F L F F • • V C I I L P G V V • • P F Y C L</u>							
F F L F F F F F N R Y A L Y C R G W Y N S P F I V Y							
F F S F S F F L I G M H Y I A G G G I I A L L L F I							

REPLACEMENT DRAWING

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FIGURE 2B (suite)

4610	4620	4630	4640	4650	4660	4670	4680
TTTTAGGTTTCAGCCAGCTATAGGAAGAATTTGTAAGAAAAAAGGATGAAGAAATATAAACAAAAATATAAATATATG							
F • V Q P A I G R I C K K K R M K K Y K Q K Y K Y M							
F R F S Q L • E E F V R K K G • R N I N K N I N I C							
<u>L G S A S Y R K N L • E K K D E E I • T K I • I Y A</u>							

4690	4700	4710	4720	4730	4740	4750
CATATATATTTAAGTATTATAAGAACATATATATAAATAAATATGTATATTTTTATTATTATTATAGGGATGATGA						
H I Y L S I I R T Y I • I N M Y I F I L L L • G • •						
I Y I • V L • E H I Y K • I C I F L F Y Y Y R <u>D D E</u>						
Y I F K Y Y K N I Y I N K Y V Y F Y F I I I G M M K						

4760	4770	4780	4790	4800	4810	4820	4830
AAAAGGATTCTACGATTCTAATTTAAATGATTCTGCTTTTGAATATAATAATAATAAATATAATAAATTACCTTATAT							
K R I L R F • F K • F C F • I • • • I • • I T L Y							
<u>K G F Y D S N L N D S A F E Y N N N K Y N K L P Y M</u>							
K D S T I L I • M I L L L N I I I I N I I N Y L I C							

4840	4850	4860	4870	4880	4890	4900	4910
GTGTAAGGAAAAAATAAAAAACAAAAAAAAAAAAAAAAAATATATATATATATATATATATTTACGGATGCATTTCCACA							
V • G K N • K T K K K K N I Y I Y I Y I Y G C I S T							
C K E K T K K Q K K K K I Y I Y I Y I F T D A F P H							
V R K K L K N K K K K Y I Y I Y I Y L R M H F H I							

4920	4930	4940	4950	4960	4970	4980	4990
TTCCTATTATTTCTTATTCTTATAATTTTATTATTATTATTATTTTTCGTTAGTTGATCAACAAATAAA							
F L L F L I L I I F I I Y L F I F F F R S • S T N K							
S Y Y F L F L • F L L F I Y L F F F F <u>V V D Q Q I N</u>							
P I I S Y S Y N F Y Y L F I Y F F F S • L I N K • M							

REPLACEMENT DRAWING

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FIGURE 2B (suite)

5000	5010	5020	5030	5040	5050
TG TAGTAAATTCTGATTTATATTCGGAGGGTATTTATGATGACACAACGACATTTTAA					
C	S	K	F	•	F
I	F	G	G	Y	L
•	•				
V	V	N	S	D	L
Y	S	E	G	I	Y
D	D	T	T	T	F
•					
•	•	I	L	I	Y
I	R	R	V	F	M
M					